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(21)Application number : 11-254357 (71)Applicant : SHIRAISHI TOSHIKAZU  
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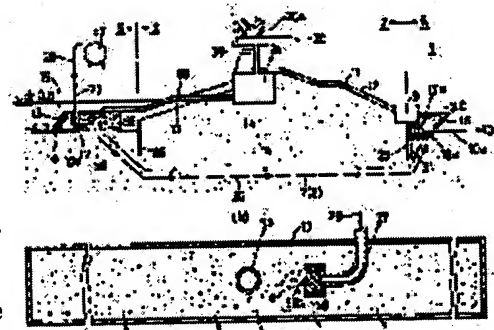
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(54) LIQUEFACTION PREVENTIVE METHOD FOR GROUND DURING EARTHQUAKE BY PENETRATING WATER HAVING DISSOLVED AIR INTO GROUND

## (57)Abstract:

PROBLEM TO BE SOLVED: To make water having dissolved air penetrate into ground without causing the subsidence of ground by continuously penetrating water having dissolved air containing hyperfine air bubbles into ground which has a weak adhesive strength or a steady-state subterranean stream.

SOLUTION: A storage tank 24 is installed at a middle stage position in a levee body where the bottom of the tank surface is at a mean sea water level  $\pm 0.0$  m. Next, a filter material 16a is filled inside a blind gutter 16 of a hybrid stone masonry at the upstream end side and a perforated pipe 17 is embedded. Next, an air supply pipe 27 is placed in the pipe 17, an inlet of hyper-fine filter device 56 is connected to the outlet of the pipe 27, and the outlet of the other end side is opened to the pipe 17. Next, the outlet of the storage tank 24 is connected to the inlet at the intermediate portion of the pipe 17 with a water supply pipe 55, and compressed air 28 is sent to the equipment 56 by a compressed air supply equipment 57. Then, hyper-fine air bubbles e are



generated and mixed with water from a pipe 55, thereby generating water having dissolved air. Then, it moves and penetrates into a passage 26 together with a subterranean stream 7 through the levee body 14 and ground 4, thereby lowering the degree of penetration of groundwater. In this way, the work execution and maintenance can be made much easier.

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